### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Cty: SF/ALA Rte: 80 PM: 13.9/14.3,0.0/1.6

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000817 Address: 333 Burma Road **Date Inspected:** 09-Nov-2007

City: Oakland, CA 94607

**OSM Arrival Time: 2300 Project Name:** SAS Superstructure **OSM Departure Time:** 730 Prime Contractor: American Bridge/Fluor Enterprises, a JV

**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes No Xu Lefeng & Hou Jing Yao **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A **Electrode to specification:** Yes No N/A Weld Procedures Followed: Yes No N/A N/A **Oualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No **Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component:** Caltrans Mockup

#### **Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M, 114M and U-Rib Trial Assembly, for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

WBS Item Description Dwg No. Status

Skin Plate D NA NA Welding in Progress

Mock-Up 114M, Interior Skin Plate D: Caltrans OA Inspector observed flux cored arc welding (FCAW), complete joint penetration (CJP) longitudinal stiffener (p920-2) joining skin plate A75 in the flat position. The welder is identified as Mr. Chang Chuancang, welder stamp 053870. The welder is using welding procedure specification WPS-B-T-2231-TC-U5-F, Revision 1. Caltrans QA observed ZPMC Quality Control inspector, Mr. Xu Lefeng and Bureau Veritas (BV) inspector, Mr. Hou Jing Yao, monitoring welding activities at the workstation. Caltrans QA Inspector measured current welding parameters at approximately 310 amps, 31.5 volts and 250 millimeters per minute (mm/min) travel speed. Preheat and interpass temperatures were verified during welding activities. The preheat temperature prior to the start of welding measures more than 110 Celsius (230 degree Fahrenheit) but less than 232 Celsius (450 degrees Fahrenheit) during maximum interpass temperature verification. FCAW welding consumable is verified and identified as Supercored 71H, classification E71T-1, diameter 1.4 mm (.055 inches). Following digital picture illustrates welding in progress.

# WELDING INSPECTION REPORT

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# **Summary of Conversations:**

As identified within the contents of this report.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Hasler,Mike	Quality Assurance Inspector
Reviewed By:	Cuellar,Robert	QA Reviewer